

Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application.

Listing of Claims:

1-21. (Cancelled)

22. (Currently Amended) A brazing method for, through melting of a connecting agent then solidification of the connecting agent, achieving a mechanical and electrical connection between a first face of a first piece of an electro-technical device, and a second face of a second piece of the electro-technical device, the method comprising:

connecting the first piece and the second piece with the connecting agent by locally heating the second piece with a predetermined amount of energy for a first duration of time to only melt the connecting agent, wherein:

the first piece is made from:

a first metallic material in the form of a foil of a given thickness, the first metallic material comprising a first main constituent, the first metallic material having a first complete solidification temperature; and

a dielectric interfacing material,

the second piece:

has in a direction substantially orthogonal to the second face a dimension appreciably greater than the thickness of the foil;

is composed of a second metallic material comprising a second main constituent, ~~the second main constituent at least substantially similar to the first main constituent~~, the second metallic material having a second complete solidification temperature; and

choosing a connecting agent made of a third metallic material that comprises a third main constituent ~~at least substantially similar to the first main constituent~~, the third metallic material having a complete melting temperature that is lower, than the first complete solidification temperature and lower than the second complete solidification temperature

wherein:

the first main constituent is aluminum,

the second main constituent is aluminum, and

the third main constituent is aluminum.

23. (Previously presented) The brazing method according to claim 22, wherein the connecting agent has a third complete solidification temperature, the method further comprising:
forming a fusible element from the connecting agent that is configured to be placed in contact with the first face and the second face, and
cooling, after the first duration, the connecting agent to the temperature lower than a third complete solidification temperature.

24. (Previously presented) The brazing method according to claim 22,
further comprising:
heating the second piece instantaneously starting from an ambient temperature, without the second piece having to have been heated beforehand in order to bring it to a temperature close to the temperature for complete melting of the connecting agent.

25. (Previously presented) The brazing method according to claim 22,
further comprising:
controlledly cooling, after the first duration, the second piece for a second duration so as to remove the energy related to the heating and to prevent any thermal degradation of the first piece and the second pieces.

26. (Canceled)

27. (Currently Amended) Brazing method according to claim 22, characterized in that used is a first metallic material and a second metallic material whose complete solidification temperatures, referred to as a first complete solidification temperature and a second complete solidification temperature are ~~at least substantially similar to one another~~ identical.

28. (Previously presented) The brazing method according to claim 22, wherein the first complete solidification temperature and the second complete solidification temperature, are different from one another.

29. (Previously presented) The brazing method according to claim 22, wherein:
the first metallic material comprises aluminum;
the second metallic material comprises aluminum; and
the first complete solidification temperature is at least 635° C;
the connecting agent consists of an alloy of aluminum and of silicon with a percentage by mass of silicon between 7% and 13% and having a complete melting temperature that is at most equal to six hundred thirteen degrees Celsius (613°).

30. (Previously presented) The brazing method according to claim 22, wherein:
the first metallic material and the second metallic material comprise aluminum containing at least one of silicon, magnesium, manganese, copper, and iron, with percentages by mass that are such that the first complete solidification temperature is at least 635° C.

31. (Previously presented) The brazing method according to claim 22, wherein:
the first metallic material and the second metallic material comprise aluminum containing silicon, with a percentage by mass of silicon between 0.25 and 0.50; and
the first complete solidification temperature is at least 635° C.

32. (Previously presented) The brazing method according to claim 22, wherein:
the first piece comprises two electrodes separated by an element of the dielectric interfacing material;
at least one of the electrodes is made starting from the foil of the first metallic material having a very slight thickness;
the grouping of the electrodes is achieved such that at least one of the electrodes has a free edge that extends to form the first face;
the second piece forms an electric terminal, configured to be connected mechanically and electrically to one of the electrodes of the first piece; and

the second piece has the second face configured to be substantially superimposed on the first face of the first piece.

33. (Previously presented) The brazing method according to claim 25, wherein an induction heating device is used to heat and then controlledly cool the second piece, the induction device having an induction coil and an apparatus for supplying the induction coil with power of a determined frequency.

34. (Previously presented) The brazing method according to claim 25, wherein a heating device employing an electromagnetic field is used to heat and then controlledly cool the second piece.

35. (Previously presented) The brazing method according to claim 33, further comprising:

rotating the second piece on the induction coil in such a way as to make the heating uniform.

36. (Previously presented) The brazing method according to claim 22, further comprising:

forcing the first piece against the second piece during heating.

37. (Withdrawn) An electro-technical device, comprising the first piece and at the second piece between which a mechanical and electrical connection is achieved according to the brazing method of claim 22.

38. (Withdrawn) The electro-technical device of claim 37, wherein the second piece defines a housing.

39. (Withdrawn) The electro-technical device of claim 38, wherein the first piece is a capacitor electrode.

40. (Withdrawn) The electro-technical device of claim 38, wherein the first piece is a battery electrode.

41. (Withdrawn) The electro-technical device, of claim 39, wherein the first piece comprises carbon particles.

42. (Withdrawn) The electro-technical device of claim 39, wherein the capacitor electrode is a double-layer capacitor electrode.